

Claims

1. A mobile communication terminal capable of performing communication by a plurality of communication systems which include a first communication system and
5 a second communication system, comprising:

first communication means for performing communication with a destination terminal by the first communication system;

10 second communication means for performing communication with the destination terminal by the second communication system;

first determination means for determining whether the mobile communication terminal is within the second
15 wireless communication region or not during communication with the destination terminal;

second determination means for determining whether the destination terminal is within the second wireless communication region or not during communication with
20 the destination terminal; and

communication changeover control means for performing control to change over between communication using the first communication means and communication using the second communication means, based on at least
25 one of a determination result of the first determination

means and a determination result of the second determination means.

2. The mobile communication terminal according to claim 1,

wherein the communication changeover control means performs control to change over from communication using the first communication means to communication using the second communication means when the first determination means concludes that the mobile communication terminal is within the second wireless communication region during communication with the destination terminal by the first communication means and the second determination means concludes that the destination terminal is within the second wireless communication region.

3. The mobile communication terminal according to claim 2,

wherein the communication changeover control means performs control to cut off a line connected to the destination terminal by the first communication means after line connection to the destination terminal by the second communication means is completed.

4. The mobile communication terminal according

to claim 3, further comprising:

resumption control means for resuming the second communication means when the first determination means concludes that the mobile communication terminal is
5 within the second wireless communication region during communication with the destination terminal by the first communication means, and suspending the first communication means after the line connected to the destination terminal by the first communication means
10 is cut off.

5. The mobile communication terminal according to any one of claims 1 through 3,

wherein the communication changeover control means
15 performs control to change over from communication using the second communication means to communication using the first communication means when the first determination means concludes that the mobile communication terminal is out of the second wireless
20 communication region during communication with the destination terminal by the second communication means.

6. The mobile communication terminal according to any one of claims 1 through 3,

25 wherein the communication changeover control means

performs control to change over from communication using
the second communication means to communication using
the first communication means when the second
determination means concludes that the destination
5 terminal is out of the second wireless communication
region during communication with the destination
terminal by the second communication means.

7. The mobile communication terminal according
10 to claim 5,

wherein the communication changeover control means
performs control to cut off the line connected to the
destination terminal by the second communication means
after the line connection to the destination terminal
15 by the first communication means is completed.

8. The mobile communication terminal according
to claim 6,

wherein the communication changeover control means
20 performs control to cut off the line connected to the
destination terminal by the second communication means
after the line connection to the destination terminal
by the first communication means is completed.

25 9. The mobile communication terminal according

to claim 7, further comprising:

resumption control means for resuming the first communication means when the first determination means concludes that the mobile communication terminal is out
5 of the second wireless communication region during communication with the destination terminal by the second communication means, and suspending the second communication means after the line connected to the destination terminal by the second communication is cut
10 off.

10. The mobile communication terminal according to claim 8, further comprising:

resumption control means for resuming the first
15 communication means when the second determination means concludes that the destination terminal is out of the second wireless communication region during communication with the destination terminal by the second communication means, and suspending the second
20 communication means after the line connected to the destination terminal by the second communication is cut off.

11. The mobile communication terminal according
25 to any one of claims 1 through 10,

wherein the first determination means determines that the mobile communication terminal is within the second wireless communication region during communication with the destination terminal by the first communication means, based on mobile communication terminal within-region notification information for notifying that the mobile communication terminal is within the second wireless communication region, the notification information being sent from communication management apparatus for managing communication between the mobile communication terminal and the destination terminal, and

wherein the second determination means determines that the destination terminal is within the second wireless communication region during communication with the destination terminal by the first communication means, based on destination terminal within-region notification information for notifying that the destination terminal is within the second wireless communication region, the notification information being sent from the communication management apparatus.

12. The mobile communication terminal according to any one of claims 1 through 10, further comprising:
radio wave intensity detection means for detecting

intensity of a radio wave received by the second communication means during communication with the destination terminal through the second communication means,

5 wherein the first determination means determines whether the mobile communication terminal is within the second wireless communication region or not during communication with the destination terminal by the second communication means, based on the radio wave intensity
10 detected by the radio wave intensity detection means.

13. The mobile communication terminal according to any one of claims 1 through 10,

 wherein the second determination means concludes
15 that the destination terminal is out of the second wireless communication region during communication with the destination terminal by the second communication means, based on destination terminal out-of-region notification information for notifying that the
20 destination terminal is out of the second wireless communication region, the notification information being sent from communication management apparatus for managing communication between the mobile communication terminal and the destination terminal.

25

14. The mobile communication terminal according to any one of claims 1 through 13,

wherein the second communication system is a communication system based on SIP.

5

15. A communication management apparatus for managing communication between two mobile communication terminals performing the communication by a plurality of communication systems,

10 wherein the two mobile communication terminals are set as a source terminal and a destination terminal respectively,

wherein the plurality of communication systems include a first communication system and a second
15 communication system, a first wireless communication region in which communication can be made by the first communication system is wider than a second wireless communication region in which communication can be made by the second communication system, and

20 wherein the communication management apparatus comprises:

position information detection means for detecting position information of the source terminal and the destination terminal;

25 within-region determination means for determining

whether the source terminal and the destination terminal are within the second wireless communication region or not during communication between the source terminal and the destination terminal, based on region information of the second wireless communication region and the position information; and

notification information transmission means for transmitting the source terminal notification information for notifying a determination result of the within-region determination means.

16. The communication management apparatus according to claim 15,

wherein the notification information contains source terminal within-region notification information for notifying that the source terminal is within the second wireless communication region during communication between the source terminal and the destination terminal by the first communication system, and destination terminal within-region notification information for notifying that the destination terminal is within the second wireless communication region during communication between the source terminal and the destination terminal by the first communication system.

17. The communication management apparatus
according to claim 15 or 16,

wherein the notification information contains
destination terminal out-of-region notification
5 information for notifying that the destination terminal
is out of the second wireless communication region during
communication between the source terminal and the
destination terminal by the second communication system.

10 18. The communication management apparatus
according to any one of claims 15 through 17, wherein
the second communication system is a communication system
based on SIP.